

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application of: Seiji SARAYAMA, et al.

Serial No. : Con't of 09/590,063 Group Art Unit: 2811

Date Filed : Concurrently Herewith Examiner:

For : PRODUCTION OF A GaN BULK CRYSTAL
SUBSTRATE AND A SEMICONDUCTOR DEVICE
FORMED ON A GaN BULK CRYSTAL SUBSTRATE

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Commissioner For Patents
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PRELIMINARY AMENDMENT

Sir:

Prior to examination of the above-identified application, which is a division of application Serial No. 09/590,063, filed June 8, 2000, Applicants respectfully request that the above identified application be amended as follows.

In the Specification

Page 32, delete lines 10-26, and replace with --From the x-ray diffraction peak position data, it was confirmed that the cubic GaN bulk crystal 102B thus formed has a cubic lattice constant a_0 of $4.5063 \pm 0.0009\text{\AA}$. Fig. 19 shows x-ray diffraction intensity data obtained for a GaN bulk crystal grown by the apparatus of Fig. 3 as the bulk crystal 102B at a temperature of 750°C under the total pressure of 7MPa in the reaction vessel 101. In Fig. 19, it should be noted that the F_o represents the structural factor obtained from the diffraction intensity data for each of the reflections ($h k l$) and s represents the error factor of the measurement, while F_c represents the structural factor calculated from a cubic zinc blende